

**A New Record of a Short-tailed Whip Scorpion from  
Santa Catalina Island, California  
(Schizomida: Schizomidae)**

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One adult male and female *Schizomus pentapeltis* were found in February 1982 under the same rock in Gallaghers Canyon, ca. 3.3 km NW of the city of Avalon, on the leeward side of Santa Catalina Island and represent the first records of schizomids from the southern Channel Islands. Six species have been described from southern California. *Schizomus briggsi* from near Fresno; *S. shoshonensis* from the northern Mojave Desert; *S. joshuensis* from Joshua Tree National Monument; *S. borregoensis* from Anza-Borrego State Park; *S. belkini* from the San Gabriel, Santa Monica, and Santa Ynez mountains and Santa Cruz Island (the only record from any of the northern Channel Islands); and *S. pentapeltis*, which occurs in the Los Angeles Basin, Riverside, Orange, and San Diego counties (Rowland, 1972; Rowland and Reddell, 1981). Although Hilton (1932) and Cockerell (1945) referred to *S. belkini* (on Santa Cruz) as *S. pentapeltis*, McDonald and Hogue (1957), Hom (1967), and Rowland and Reddell (1981) have subsequently reported them as *S. belkini*. Rowland (1972) reported that schizomids are very sensitive to desiccation and typically are found in dark, moist habitats in leaf litter, under rocks, and in logs. They also become more abundant during the cooler, wetter months from autumn through early spring. Gallaghers Canyon is fed by springs most of the year, creating moist conditions. The two specimens were found beneath a rock along side the stream bed shortly after a rain (0.63 cm on January 29th). Considering the secretive habits of schizomids, their occurrence in litter, and the number of humans that visit and live on Catalina, *S. pentapeltis* may have been unknowingly introduced to the island. However, one should not rule out the likely possibility of random dispersal of schizomids over water, since Santa Catalina is relatively close to the mainland and suitable habitats are found in several canyons.

*Schizomus pentapeltis* is primarily tropical and may have moved along the west coast of Central America into Baja California during the Miocene when the Baja peninsula was still part of mainland Mexico (Rowland, 1972). The isolated schizomid populations were possibly distributed throughout the humid peninsular mountain ranges and northward movement of Baja along the San Andreas Fault eventually brought these mountains into contact with California during the Pliocene. Geological evidence from the coastline of southern California and offshore island ridges seems to indicate an absence of any Pliocene and Pleistocene land bridges to Catalina which could have acted as a pathway for dispersal of land animals (Vedder and Howell, 1980). Warmer, wetter postglacial climates would have favored schizomid dispersal, but concurrent rising sea levels that significantly decreased the surface area of the island and increased the distance from the

mainland, may have presented a more formidable barrier to rafting organisms. On the other hand, temperatures in southern California during the Pleistocene glacial periods may not have been cold enough to limit the distribution of schizomids, particularly in coastal regions. As a result, lowered sea levels would have exposed more of Catalina and decreased the distance from the mainland, thereby increasing the chances of colonization by random dispersal. It seems likely that additional *S. pentapeltis* populations occur in other canyons on Catalina Island where optimal conditions may be found whether they represent recently introduced or relictual groups. The only other locality examined was Toyon Canyon, adjacent to Gallaghers Canyon, and no specimens were recovered. In any event, this discovery may serve as an impetus to conduct studies on Catalina and other off-shore islands to determine schizomid occurrence and distribution. It seems unlikely, however, that *S. pentapeltis* inhabits San Clemente, San Nicolas, and Santa Barbara islands because these islands are smaller, are situated a greater distance from the mainland, have less rainfall, and only one of them (San Nicolas) has significant water.

Both specimens are deposited in the Natural History Museum of Los Angeles, Los Angeles County, California.

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